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OBSERVATIONS
—AND—
Practical Results of Medical Service,

In the Charity Hospital of New Orleans, La., 1869-86.

BY JOSEPH JONES, M. D.,

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Medical Department Tulane University of Louisiana.

Read before the Louisiana State Medical Society, April, 1886.

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OBSERVATIONS AND PRACTICAL RESULTS OF MEDICAL SERVICE *

In the Charity Hospital of New Orleans, La., 1869-1886,

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The following tables will present the general results of the treatment, by the author, of six thousand three hundred and eleven cases of disease in the Charity Hospital of New Orleans :

TABULAR STATEMENT OF CASES AND DEATHS AND PERCENTAGE
AND RATIO OF MORTALITY DURING THE VARIOUS PERIODS
SPECIFIED IN THE MEDICAL SERVICE OF JOSEPH
JONES, M. D., IN THE CHARITY HOSPITAL
OF NEW ORLEANS, LOUISIANA.

Periods of Time Embraced in Medical Service in the Charity Hospital of New Orleans.	Total Cases Treated	Total Deaths	Per Cent of Deaths	Ratio of Deaths in 1000 Cases.	One Death in so many Cases.
Jan. 1, 1869 to April 1, 1870, 15 months	.....	.....	.....	.....	.....
Oct. 1, 1870 " 1871, 6 "	.....	.....	.....	.....	.....
" 1871 " 1872, 6 "	.....	.....	.....	.....	.....
Total 27 months.....	1111	106	9.5	95.	10.48
Oct. 1, 1872 to April 1, 1873, 6 months	213	39.	18.3	183.	5.46
" 1873 " 1874, 6 "	517	51.	9.8	98.	10.13
" 1874 " 1875, 6 "	.....	.....	.....	.....	.....
" 1875 " 1876, 6 "	.....	.....	.....	.....	.....
Total 12 months.....	757	65	8.5	85.	11.60
Oct. 1, 1876 to April 1, 1877, 6 months	437	43	9.8	98.	10.16
" 1877 " 1878, 6 "	510	58	11.3	113.	8.79
" 1878 " 1879, 6 "	283	32	11.3	113.	8.87
" 1879 " 1880, 6 "	262	29	11.08	110	9.03
" 1880 " 1881, 6 "	.....	.....	.....	.....	.....
" 1881 " 1882, 6 "	.....	.....	.....	.....	.....
Total 12 months.....	516	56	10.8	108.	9.21
Oct. 1, 1882 to April 1, 1883, 6 months	373	43.	11.5	115.	8.67
" 1883 " 1884, 6 "	462	55.	11.9	119.	7.96
" 1884 " 1885, 6 "	547	63.	11.5	115.	8.36
" 1885 " 1886, 6 "	323	28.	8.6	86.	11.53
Total	6311	668	10.4	104.	9.44

*Read before the La. State Medical Society, April, 1886.



GENERAL SUMMARY.

	Cases.	Deaths.
General Diseases.....	4034	276
Diseases of the Nervous System.....	442	59
" " Heart and Blood-vessels....	91	36
" " Absorbent System.....	3	1
" " Respiratory System.....	493	82
" " Alimentary Canal.....	709	123
" " Liver.....	85	38
" " Spleen.....	4	1
" " Kidneys.....	88	26
" " Bladder and Male Organs....	70	1
" " Female Organs of Generation,	20	..
" " Organs of Locomotion.....	15	..
" " Cutaneous System.....	15	1
" " Eye, Nose and Ear.....	25	..
Injuries, Ulcers and Wounds.....	96	8
Poisons.....	21	2
Conditions not necessarily associated with local or general diseases.....	89	14
Parasites.....	11	..
Total.....	6311	668

Per cent. of deaths from all causes, 10.4.

Ratio of deaths per 1000 cases, 104.

One death in 9.44 cases.

Practical conclusions of value may be obtained by a general review of the results of medical service extending over a series of years. The nature of such conclusions and their relations to the practice of medicine must evidently depend not merely upon the number of the observations, but also upon the mode in which they were recorded.

I have served in the Charity Hospital of New Orleans, Louisiana, from January 1, 1869, to April 1, 1870, and since that time, to April 1, 1886, six months of each year, from the 1st of October to the 1st of April; and during this period extending over eighteen years, I have kept a careful

record of the names, ages, and nativity of patients,—diagnosis, prognosis, and the final results of the cases treated by me in the wards of the hospital. During this period the total number of cases under my immediate care was 6311, of which 668 or 10.4 per cent. terminated fatally.

The following consolidated records will, we hope, prove of permanent value for comparison, and for the illustration of the nature and mortality of the prevalent diseases of the delta of the Mississippi.

GENERAL DISEASES.

Malarial, Paroxysmal, Endemic, Non-Contagious Fever.

	Cases.	Deaths
Intermittent fevers, including quotidian, tertian and quartan.....	2327	5
Remittent malarial fever	247	7
Pernicious congestive malarial fever, including the comatose, algid and other varieties (a large proportion of the cases were brought into the hospital in a moribund condition)...	87	56
Chronic malarial poisoning (malarial toxæmia cachexia), with various complications, as enlarged liver and spleen, contracted liver and hardened spleen, anæmia anasarca.....	212	14
Malarial hæmaturia.....	12	6
Total malarial, endemic, non-contagious fevers,	2885	88

Per cent. of deaths in the various forms of malarial fever, 3.05.

Ratio of deaths in 1000 cases of the various forms of malarial fever, 30.5.

One death in 32.8 cases of the various forms of malarial fever.

PERNICIOUS MALARIAL FEVER.

Cases of Pernicious (Congestive) Malarial Fever frequently brought into the Charity Hospital of New Orleans in a Moribund and Insensible Condition.

During a period of 27 months of hospital service, extending at various intervals, as previously indicated, from

January 1st, 1869, to April 1st, 1872, fifteen cases of congestive or pernicious malarial fever were brought into the wards under the care of the author in an insensible condition: ten of these cases appeared to be in a state of hopeless insensibility. The most energetic measures, as purgatives, sinapisms, blisters, quinine and stimulants failed to arouse them from profound and fatal coma, and they died in from 8 to 48 hours. In the 10 fatal cases counter irritants, quinine and stimulants appeared to prolong life, and thus 5 cases which recovered out of the 15 cases were preserved from death by these measures and remedies. During the same period, of 19 cases of chronic malarial poisoning (malarial cachexia), 2 terminated fatally, and post-mortem examination revealed the presence of cirrhosis of the liver induced by the action of the malarial poison in virtue of its power to produce repeated congestions of the liver, and to induce alterations in the amount and composition of the blood and bile.

The 19 cases of chronic malarial poisoning entered the hospital in a most enfeebled condition, with pale anæmic countenances, feeble rapid action of the heart; nervous and muscular prostration; enlargement of spleen and liver, chronic interstitial hepatitis: jaundice watery condition of the blood, and general anasarca.

The treatment adopted in such cases, consisted in the regulation of the bowels and the functions of the liver by purgation; the arrest of the paroxysms by quinine and arsenic, and the improvement of the blood by the preparations of iron and nutritious diet. Of the 19 cases, 17 were discharged cured, or greatly relieved.

SUN STROKE.

Two cases of sun stroke occurred during this period, and were brought into the hospital with high temperature, marked capillary congestion, and nervous and muscular prostration. One of these cases terminated fatally within twenty-four hours after entering the hospital; the other case recovered.

In one case of "*sun stroke*" which occurred during the month of July, 1878, in which the temperature was noted, it was found to be 112° F., in the axilla at the time of death.

The phenomena characteristic of thermic fever (*sun stroke*), appear to be dependent in a large measure, upon the complex and unstable composition of the blood. Like all complex and highly elaborated organic fluids, which are continually supplied with oxygen, the blood can maintain a definite physical and chemical constitution, only within certain degrees of temperature. Unless a definite physical and chemical constitution of the blood be maintained, the necessary nutritive elements will not be supplied to the organs and tissues, and alterations in the secretions and aberrations of the muscular and nervous forces will result. When the temperature of the blood rises above a certain degree, not only is the amount of carbonic acid increased, and the cerebro-spinal and sympathetic systems affected injuriously thereby, but it is also probable that a new series of chemical actions are developed, and compounds are generated, which act as poisons to the nervous system. The irritability of the heart is rapidly exhausted by high temperature.

The rapid and extraordinary rise of temperature in the blood characteristic of thermic fever (*heat stroke—sun-stroke*) should also be attended with disturbances in the normal electric currents in the nerves and muscles.

The great increase of carbonic acid and the corresponding consumption of oxygen, and the rapid generation of urea, and of other excretory products, the alterations of the hæmoglobin and fibrin; and the dilatation of the capillaries, or the passive congestions of the internal organs, but more especially of the brain, spinal cord and liver, must also be regarded as important factors in the state known as "*sun-stroke*." As far as the experience of the author extends, sun-stroke is less common in New Orleans than in New York, Philadelphia, Cincinnati or St. Louis.

This difference appears to be due to the more uniform

temperature, the large masses of water penetrating Louisiana in all directions, the prevalence of cool gulf breezes in the summer months, the wide streets, the construction of the habitations largely of wood, the one or two storied size of the dwellings, and the absence of crowding in most parts of this city.

CONGESTIVE MALARIAL FEVER.

During a period of six months, October 1, 1872, to April 1, 1873, thirteen cases of congestive or pernicious malarial fever were entered in wards 13, 14 and 15, of which number five cases were brought in a hopeless (*moribund*) condition—comatose—small, rapid, almost imperceptible pulse; congestion of superficial capillaries; stimulants, counter irritants (sinapisms and blisters), and quinine, had no appreciable effect in arousing the nervous system.

Five cases of chronic malarial poisoning were complicated with jaundice, hepatitis, enlarged spleen, ascites and general anasarca. No deaths occurred amongst these cases, and after prolonged and tedious treatment they were cured or greatly relieved.

Three cases of malarial fever were complicated with acute dysentery, attended with profuse hæmorrhages from the bowels. Two of these cases terminated fatally.

During the six months embraced between October 1, 1873, and April 1, 1874, out of a total of 517 cases of disease treated, only one case of malarial congestive fever was recorded, and this case recovered. Twenty-six cases of malarial toxæmia, with four deaths, and eleven cases of general anasarca, caused by the prolonged action of malaria, with two deaths were recorded. Intermittent fever, 211 cases, with no deaths. Remittent malarial fever, twenty cases and one death. During the same period, or rather during the months of October, November, December, 1873, yellow fever is credited with forty-five cases and nineteen deaths.

COMPLICATIONS OF MALARIAL FEVER WITH OTHER DISEASES.

The poison of malaria like that of syphilis, produces a condition of the human system characterized by certain lesions of the blood or other organs upon which may be engrafted various acute affections, as pleuritis pneumonitis and acute articular rheumatism, diarrhœa and dysentery. Thus a careful analysis of the clinical record of 757 cases of diseases treated in the Charity Hospital, October 1st, 1874, to April 1st, 1875; Oct. 1st, 1875, to April 1st, 1876, gives the following statistics with reference to uncomplicated and complicated cases of malarial fevers:

DISEASES.	CASES.	DEATHS.
Intermittent fever.....	286	1
Intermittent fever and pneumonia.....	5	
Intermittent fever and dysentery.....	2	
Intermittent fever and diarrhœa.....	14	2
Intermittent fever and erysipelas.....	1	
Intermittent fever and organic disease of the heart.....	1	
Remittent fever.....	37	
Remittent fever and diarrhœa.....	1	
Remittent fever and malarial hæmaturia.....	1	1
Pernicious malarial fever.....	2	2
Intermittent fever and rheumatism.....	2	
Intermittent fever and epilepsy.....	1	
Intermittent fever and coma.....	2	1
Intermittent fever and bronchitis.....	3	
Intermittent fever and anasarca.....	1	
Intermittent fever and necrosis of humerus.....	1	
Remittent fever and lead poisoning.....	1	
Malarial fever.....	3	
Malarial coma.....	1	1
Congestive chill.....	1	1
Malarial chachexia.....	2	
Chronic malarial poisoning.....	29	2

In the preceding 384 cases of malarial diseases with

various complications, 11 proved fatal, of this number uncomplicated intermittent and remittent fever, occasioned 323, with one death; the remaining 61 cases complicated with intercurring diseases occasioned ten deaths; the various complications therefore greatly increased the otherwise slight mortality of malarial fever.

It is worthy of note that chronic interstitial hepatitis, terminating in cirrhosis of the liver, ascites and death frequently results from the prolonged action of the malarial poison, as may be illustrated by the following case:

CASE. — Cirrhosis of the Liver, caused by the prolonged action of the malarial poison: — Ascites: Abdomen tapped; 2 gallons and one quart of serous liquid drawn off; Supervention of Hospital Gangrene of walls of abdomen in neighborhood of the wound; Death.

James Lewis, age 42, native of Louisiana, farmer, father of large family, temperate habits: entered ward 15, bed 197, Charity Hospital, December 8, 1882. Patient stated that he had resided and cultivated a farm in Pointe Coupee, Louisiana, and was attacked with severe malarial fever in the month of August, 1882, and has had frequent paroxysms, and has never had any relief from the fever and its effects, during the past few months. As the disease progressed, the patient discovered that his abdomen began to swell, and he attributed this to the frequent doses of calomel and quinine which he had taken during the progress of his disease.

Condition at the time of admission into the Charity Hospital: pale, sallow, pinched features; upper extremities emaciated; abdomen distended with liquid (rendered evident by palpation); veins of abdomen enlarged and filled with dark venous blood, presenting an arborescent appearance; lower extremities oedematous; diaphragm pressed upwards by liquid accumulated in the abdomen; lungs compressed; respiration difficult and greatly disturbed up-

on the slightest exertion. Heart pushed upwards, the apex beat, being between the 4th and 5th ribs; anæmic murmur heard with second sound of heart; spleen enlarged. Careful examination indicates that the *liver* is hardened and reduced in size. Urine contains some albumen.

Diagnosis: Cirrhosis of liver, resulting from the action of malaria, and complicated with the results of malarial poisoning.

Purgatives and diuretics with iron and quinine, produced some temporary relief, but after the full and faithful trial of these measures, for the relief of the ascites, it was deemed necessary to draw off the liquid by mechanical means.

It is worthy of note that during the most favorable action of the purgatives and diuretics, the albumen disappeared from the urine, and its presence was clearly referable to the obstruction of the circulation and functions of the kidneys from the mechanical pressure of the liquid effused into the abdominal cavity.

On the 25th of January, 1883, I introduced the trochar and canula (tapped-paracentesis abdominalis) into the abdominal cavity, at a point midway between the umbilicus and the superior-spinous process of the ilium, and drew off eighteen pints (2 gallons and 1 quart) of serous liquid.

The patient expressed great relief from the evacuation of the fluid, but on the second day after the operation the lips of the wound became swollen, with a red erysipelatous blush in the adjoining abdominal surface.

The inflammatory action spread rapidly; the parts immediately around the area, assumed a blue lurid look, the swelling increased, the blue line steadily advanced over the abdominal walls, leaving an ash-colored stinking slough in the centre.

The pulse became rapid and feeble, and the patient died February 2, 1883.

ELEVATED TEMPERATURE IN SOME CASES OF PERNICIOUS (CONGESTIVE) MALARIAL FEVER.

It is worthy of note that many of the cases of congestive or pernicious malarial fever, and especially of the comatose variety, frequently manifested an elevated temperature. The following case will illustrate this proposition:

Case. Emanuel Carneno, native of Portugal, entered ward 30, bed 448, Charity Hospital, October 13, 1874; had suffered with malarial fever for four months; pale anæmic, sallow, dark hue; general anasarca; urine free from albumen.

The patient appeared to be improving slowly under the action of quinine, iron and arsenic. On the 5th of November, 1874, the patient was seized with a severe chill and became comatose. There was a rapid rise of temperature, and one and a half hours before death, whilst the patient was in a profound coma, the temperature of the axilla was 107.5 F. No albumen in the urine.

Died during the night of the 5th, all measures having failed to arouse the patient from the comatose state.

Post-mortem examination. Heart and lungs normal; blood deficient in blood corpuscles, and of low specific gravity and abounding in a thin serous fluid; general anasarca.

Liver: Dark brown and slate color on the exterior, interior of a dark bronze hue; deposit of dark pigment and pigment cells within and around hepatic capillaries. Bile thick, dark and grumous, about 1800 grains of dark bile in gall-bladder.

Kidneys normal. Bladder contained high colored urine, rich in urea, but free from albumen casts and colored blood corpuscles.

Cranium. Membranes of brain as well as the blood vessels of the brain substance greatly congested with dark blood; cortical substance of the cerebrum and cerebellum of a dark gray and chocolate color. Deposits of

dark pigment and of large pigment cells within and around cerebral capillaries. Blood-vessels of brain and spinal cord congested with blood.

Case: Pernicious Malarial Fever.

In a similar case, which was brought into the Charity Hospital in a comatose condition, the patient, although anæmic and anasaricous, with enlarged spleen and liver, manifested during the last 48 hours of life, passed in a profound coma, a temperature in the axilla of from 104° to 106° F.

Immediately before death the temperature was 106°.

Case: Pernicious Malarial Fever.

M. Shea; age 27; entered ward 18, bed 206, Charity Hospital, November 3d, 1884: comatose; passes urine and fæces in bed: jaundiced; hot, dry skin; marked capillary congestion; foul breath; great epigastric tenderness; urine contains blood-corpuscles (red), albumen and blood casts of the tubuli uriniferi; liver and spleen enlarged; heart and lungs healthy; pulse rapid and feeble, 192 beats per minute; respiration 42 per minute. Temperature of axilla 103.7° F.

The patient continued in a comatose state and died within 12 hours after his entrance into the hospital.

During this period the eyes were fixed in one position, and the pupils did not respond to light.

It was ascertained that this patient had suffered with malarial fever before entering the hospital.

Diagnosis: Pernicious hæmorrhagic malarial fever.

Post-mortem Examination.—Heart and lungs normal; valves of heart normal; dependent portions of lungs congested; pericardium contained about two fluidrams of golden-yellow fluid.

Liver enlarged, greatly congested, and pervaded by pigment granules. Spleen enlarged, about three times its nor-

mal size, and filled with dark purplish altered blood or splenic mud, rich in hæmatin, pigment-corpuscles and altered colored blood-corpuscles; kidneys enlarged and greatly congested; urinary bladder contained about five fluidounces of red urine which contained some blood; *brain* congested; grey matter of a dark chocolate color from deposits of pigment granules and cells.

Case: Pernicious Malarial Fever. Sudden Death.

Peter Dooling; age 45; native of Ireland; cabman; entered ward 13, bed 163, January 3d, 1883.

On the 1st of January, 1883, whilst working on the banks of the Mississippi river, was seized with a violent chill which rendered him unconscious.

Entered the Charity Hospital January 3d; slight jaundice; great muscular prostration; rapid pulse, 120 per minute; temperature of axilla 103° F.; stomach very irritable; great tenderness of epigastrium; tongue very red at edges and coated with dark brown fur in centre. When the epigastric region is pressed, the patient complains of great tenderness and pain. Bowels constipated; complains of violent pain in the occipital region; urine scanty, and contains a small quantity of albumen.

On the morning of January 5th, whilst the patient was attempting to eat a little toast and milk, he was suddenly seized with a violent chill. The hospital student, upon being called to his bedside, found the patient in a comatose state: livid lips; skin covered with a cold clammy sweat; pupils contracted. In a short time the patient died.

Case: Pernicious Hemorrhagic Malarial Fever.

John Galvin, age 21, native of Ireland, laborer; admitted to ward 14; bed 183, Charity Hospital; October 12th, 1882; complained of great pain in head and lumbar region; intellect dull; aroused with difficulty, and then complains of the pain in the head and back; bowels constipated.

12 M. Patient in full perspiration, dull and drowsy.
8 P. M. Patient stupid, great tenderness in epigastric region, pupils dilated, photophobia, temperature, 101° F.; pulse 120, respiration 22. Tongue red at tip and edges, heavily coated with brown fur.

October 13, morning. Nurse stated that the patient had fallen out of bed during the night. Pulse very rapid; respiration 18; temperature of axilla, 104° F.; intellect dull, great tenderness in epigastric region. Patient has passed small quantities of urine during the night and morning. Evening, temperature 101° F.; pulse 96; respiration 18. Great tenderness and pain on pressing the epigastric region; patient very restless.

At 9 P. M., the patient vomited black matter resembling coffee grounds. Pulse feeble and gaseous. Great capillary congestion. Patient died about 2 A. M., October 15th, 1882.

Post-mortem Examination.—Lungs normal. Heart soft and containing an abnormal amount of fat. Stomach: mucous membrane congested, and this viscus contained a small quantity of dark blood.

Liver, spleen and kidneys greatly congested; liver and spleen of dark slate color.

The urinary bladder contained a small quantity of urine which upon examination was found to be albuminous.

We conclude from the preceding facts:

1st. Pernicious paroxysms frequently occur in patients already suffering from the prolonged action of the malarial poison which has already induced profound lesions of the blood, brain, liver, and spleen.

2d. Pernicious malarial fever is frequently characterized by high temperature which may continue during the most profound *coma*, even up to the moment of death.

3d. The phenomena of pernicious (congestive) malarial fever, indicate the action of a powerful poison, or morbid ferment.

CONTAGIOUS AND INFECTIOUS FEVERS AND DISEASES.

	Cases.	Deaths.
Dengue.....	15	..
Yellow Fever.....	70	35
Typhoid Fever.....	16	3
Measles.....	10	2
Scarlatina.....	4	1
Diphtheria.....	2	..
Mumps.....	3	..
Small-pox.....	18	1
Asiatic cholera.....	2	2
Total.....	146	44

Per cent. of deaths in contagious and infectious fevers and diseases 30.1.

Ratio of deaths in 1000 cases of contagious and infectious fevers and diseases 30.1.

One death from contagious and infectious fevers and diseases in 3.37 cases.

	Cases.	Deaths.
Phthisis pulmonalis.....	413	122
Per cent. of deaths in cases of phthisis pulmonalis.....	29.5	
Elephantiasis Græcorum (Oriental leprosy).....	5	3
Elephantiasis Arabum.....	3	..
Yaws, African.....	1	..
Scrofula.....	14	3
Scurvy.....	7	..
Purpura Hæmorrhagica.....	8	..
Total.....	38	6

PHTHISIS PULMONALIS.

An examination of the mortuary records of New Orleans will show that about one-tenth of all the deaths occurring in New Orleans, are due to phthisis pulmonalis.

Thus, the total death in New Orleans during 34 years,

1844 to 1880, were 242,426, and of this number phthisis pulmonalis occasioned 24,071.

During the same period fevers of all kinds destroyed in the city of New Orleans 56,478 citizens, yellow fever being credited with almost one-half this number, namely, 28,739.

Phthisis pulmonalis has therefore destroyed nearly as many citizens as yellow fever.

Enteritis, dysentery and diarrhœa caused 22,301 deaths; and asiatic cholera, cholera morbus and cholera infantum 15,144. Phthisis pulmonalis and bowel affections which are common to the entire valley of the Mississippi, caused 61,516 deaths, whilst fevers caused only 56,478 deaths. Fevers, bowel affections and phthisis pulmonalis alone, caused in New Orleans 117,994 deaths in 34 years, out of a total of 242,426 deaths from all causes.

The statistics afforded by the Charity Hospital of New Orleans are no less instructive.

During a period of 34 years, 1842-1880, 10,950 cases of phthisis pulmonalis were treated in the wards of the Charity Hospital, 5669, or 51.2 per cent. of which terminated fatally.

In comparison with phthisis pulmonalis, which every year destroys its thousands and tens of thousands, in every State in this Union, yellow fever should be regarded only as a casual and minor disease, visiting only certain limited portions of the tropical and temperate regions at long intervals.

We hear much of the cost of epidemics, but nothing as to the fearful cost of such a disease as phthisis, which holds its doomed victims in its deadly embrace, for months and even years, and inflicts in addition to indescribable tortures, continuous, and ruinous pecuniary injuries.

The chief causes of the prevalence of phthisis pulmonalis in New Orleans, appear to be :

- 1st. Imperfect drainage.
- 2d. The saturation of this atmosphere with moisture.
- 3d. Imperfect construction of houses.

- 4th. Imperfect ventilation of houses.
- 5th. Crowding.
- 6th. The neglect of regular exercise for diversion and recreation.
- 7th. Imperfect nourishment.
- 8th. Hereditary taint.
- 9th. Imperfect warming and drying of the houses by fire during the winter months.
- 10th. The wearing of insufficient clothing during the winter months.

Warm clothing, regular exercise in the open air, nutritious food, thorough drainage, and such free ventilation as should at all times secure pure air, in the store, workshop, sitting room and bed-room are the great measures for the prevention of the development of phthisis pulmonalis.

	Cases.	Deaths.
Medullary cancer.....	2	
Epithelial cancer.....	1	
Osteoid cancer.....	2	2
Schirrus cancer.....	2	
Cancer of the uterus.....	1	
Cancer of the stomach.....	1	1
Cancer of the pylorus and pancreas. . .	1	1
Cancer of the liver.....	2	2
Cancer of the testicle and mesenteric glands.....	1	1
Cancer of the rectum.....	1	
Cancer of the tongue.....	1	1
Cancer of the penis.....	1	
Total.....	16	8

The following cases of cancer present some points of interest :

Case: Cancer of the Testicle and of the Mesenteric Glands.

William Roberts ; age 37 ; admitted into ward 13, Charity Hospital, bed 216, November 10, 1881. Patient was born

in Mississippi; during childhood went to Arkansas, and from thence came to Louisiana at the age of 19 years, and resided in East Baton Rouge; laborer; accustomed to hard work; temperate habits; used neither tobacco or whisky; regarded himself as in good health until June, 1881, when he was attacked with typhoid fever. During the period of convalescence, a tumor or swelling was observed in the abdomen, which continued to increase in size. Patient says that his father and mother were healthy. Roberts was sent by his attending physician to the care of the author, in the Charity Hospital, on the 10th of November, 1881.

Upon examination I found the abdomen greatly distended by a large nodulated *moveable* tumor; that is, some of the nodules were moveable upon manipulation. Palpation and percussion revealed the fact that the abdominal cavity contained little or no free fluid. Aspiration resulted in the evacuation of only small quantities of bloody fluid.

The left testicle was enlarged, forming a nodulated and slightly fluctuating tumor about $3\frac{1}{2}$ inches in diameter.

The patient stated that this tumor had existed for many months, and, perhaps, had commenced to form at least two years before the attack of typhoid fever, and the rapid growth of the abdominal tumor.

Appetite good, and the stomach retains all the nourishment administered.

The tumor continued to increase daily; the distress from the tension of the abdominal walls, and the forcing up of the diaphragm continued.

Patient died November 22, 1881, twelve days after his entrance into the hospital.

Post-mortem examination revealed the presence of a large nodulated *encephaloid* cancer of the mesenteric glands, which filled and distended the abdominal cavity, and weighed about 30 pounds. The tumor (or rather series of tumors), was found attached to the posterior wall of the abdominal cavity. When cut a brain-like substance exuded.

The testicle upon dissection was found to be a mass of

encephaloid cancer, and contained the same brain-like substance. All the mesenteric glands along the track of the spermatic cord of the left testicle were enlarged with the same cancerous matter. The liver contained several small abscesses. The left kidney was atrophied from pressure of the tumor; the right kidney was hypertrophied, spleen enlarged, heart and lungs healthy.

All the mesenteric glands of the abdomen were enlarged and cancerous.

The diagnosis, *cancer of the left testicle*, and of the mesenteric glands, made in the amphitheatre, to the Medical Class of 1881-2, at the time of the examination of this patient immediately after his entrance into the hospital, was confirmed in the *Dead House*.

In this interesting case, it is reasonable to suppose, that the left testicle was the starting point of the cancerous disease; and that the supervention of typhoid fever promoted the rapid dissemination of the cancer cells.

Case: Cancer of Stomach and Liver.

A. W. King; native of Franklin, Tennessee; age 60; admitted to ward 14, Charity Hospital, November 13, 1881; has been in Louisiana about one month; occupation printer and editor; can give no history of his father and mother, with reference to their health; says that he has been *a hard drinker all his life*; nevertheless has enjoyed good health, until about six months before entering the hospital.

Upon examination the patient was found to be suffering with incessant vomiting and great prostration, which he stated had commenced about six weeks before, during which time he had been unable to retain anything on his stomach. A hard tumor occupies the epigastrium, right and left hyperchondriæ, and portions of the umbilicus and right and left lumbar regions. The tumor was hard and nodulated upon the surface, flat on percussion and without fluctuation. I pronounced this tumor to be a scirrhus cancer of the liver. Patient stated that he had never vomited blood, but ejected everything that he ate, shortly after

its entrance into the stomach, and exclaimed: "*I am hungry all the time, and am dying of starvation.*"

Complains of sharp lancinating pains in the tumor and stomach. The effort was made to sustain life by the injection of beef tea and milk into the rectum. Sulphate of morphia (1-3 gr.) was injected subcutaneously, at regular intervals, to relieve the pain.

From the fact that food is received into the stomach and then rejected, and from the fact that no food passes downward, the conclusion was reached that the pyloric extremity of the stomach, as well as the superior portions of the pylorus were the seat of a schirrhous cancer.

The diagnosis announced to the medical class at the clinical lecture, with the patient on the table in the amphitheatre, was *cancer of the pyloric extremity of the stomach, of the superior portion of the pylorus and of the liver.*

The effort to sustain life by means of nutritive enema, was only partially successful, the powers gradually declined, the emaciation was extreme, and the patient died, apparently from starvation, on the 21st of November, 1881, eight days after his entrance into the hospital.

On post-mortem examination, the brain, heart and lungs, and in fact all the organs, with the exception of the stomach and liver were normal.

The pyloric extremity of the stomach and the superior portion of the pylorus were occupied by a schirrhous cancer which completely excluded the pyloric orifice, and precluded the passage of solids and liquids from the stomach into the intestinal canal.

The enlarged nodulated cancerous liver, formed the hard tumor, occupying the region above described.

When sections of the liver were made, it was evident that cirrhosis and fatty degeneration of the organ co-existed with the extensive invasion of the organ by the cancerous cells, structures and deposits. The cirrhosis and fatty degeneration were due most probably to the excessive use of alcohol, and most probably antedated the supervention of the cancer of the stomach and liver. It was not possible

to trace any relationship of cause and effect between the excessive use of alcohol and the development of cancer.

	Cases.	Deaths.
Erysipelas.....	19	2
Acute articular rheumatism.....	152	2
Chronic articular rheumatism.....	157	2
Muscular rheumatism.....	17	..
Gonorrhœal rheumatism.....	6	..
Syphilitic rheumatism.....	30	..
Gout (chronic).....	1	..
Primary syphilis.....	34	..
Secondary (constitutional) syphilis.....	120	2
Total.....	536	8

Grand total general diseases, including all the forms of malarial and other fevers, phthisis and other constitutional diseases.....4034 276

Per cent of deaths in general diseases, 6.83.

Ratio of deaths per 1000 cases of general diseases, 68.3.

One death from general diseases in 14.6 cases.

It is evident from the preceding figures that, whilst the malarial (paroxysmal fevers) numbered 2885 cases out of a total of 4037 cases of constitutional diseases, or about 71.2 per cent., on the other hand the mortality occasioned by malarial fevers was only 88 out of 268 deaths from all general diseases.

The mortality occasioned by the various forms of malarial fever was only about 31 per cent. of the mortality occasioned by all general diseases, including the former.

Before proceeding to examine the numerical relations of the local diseases treated by the author in the Charity Hospital of New Orleans, during the periods already specified, we will make some practical observations upon the treatment of rheumatism and syphilis.

ACUTE AND CHRONIC RHEUMATISM.

It will be seen that we have classified the cases of rheumatism under the following heads: Acute Articular

Rheumatism, Chronic Articular Rheumatism, Muscular Rheumatism, Gonorrhœal Rheumatism, and Syphilitic Rheumatism. Of these forms of rheumatism, the clinical record reveals that 362 cases were treated, with 4 deaths; per cent. of deaths, 1.1 The mortality was small, being a little over one per cent. of the cases treated, or one death in 90.5 cases treated. The four deaths were distributed equally between the cases of acute and chronic rheumatism.

As far as the experience of the author extends, rheumatism is not a fatal form of disease either in hospital or civil practice.

I did not employ salicin, salicylic acid or salicylate of soda to any extent, either in hospital or civil practice, previous to the year 1878; and up to this date no deaths had occurred among the cases of rheumatism treated by the author in the wards of the Charity Hospital of New Orleans: the three deaths from acute and chronic rheumatism which occurred in 1881 were not, however, in any manner referable to the action of the salicylates, but rather to cardiac malarial and other complications.

Preceding the use of the salicylates, I employed the following general plan of treatment, in both private and hospital practice:

1. The bowels were opened by a mercurial or saline purgative. In cases complicated with malarial influences, an efficient dose of calomel or blue mass, combined with sulphate of quinia, yielded the best results.

The bowels were kept open, and the constipating effects of opiates, counteracted by the occasional use of saline purgatives, as *effervescing powders*, sulphate of magnesia, sulphate of soda and citrate of magnesia.

In uncomplicated cases of acute rheumatism, free from all syphilitic taint, mercurials are used as purgatives, and not to produce a decided constitutional effect, as manifested by ptyalism.

2. The temperature was controlled, and at the same time certain indications induced by the action of the mala-

rial poison, met by the regular administration of the sulphate of quinia in doses of from 5 to 10 grains.

3. For the relief of pain, opium and its preparations were used at regular intervals, and in amounts adapted to each case, and sufficient to relieve acute suffering.

In many cases we combined the Dover's powders (pulv. ipecac et opii, U. S. P.) with the quinine, thus securing at once the antipyretic properties of the quinine, the sedative effects of the opium, and the diaphoretic and diuretic properties of the ipecac and sulphate of potash.

The following formulæ will give a general idea of the mode in which these remedies were combined and used :

R_y. Sulphate of quinia, grains xxx.

Pulv. ipecac et opii (Dover's powders), grains xx.

Mix: Divide into 10 powders.

Administer one powder every three, four or six hours.

When the pulse was rapid and full, digitalis, in the form of tincture or powder, or the tincture of yellow jasmine, or the tinctures of aconite or veratrum vide, were used at regular intervals in conjunction with the quinine and Dover's powders.

In some cases it was found advisable to administer a full dose of opium, from one to two grains at bed time. The administration of the opium was guided by the nature and intensity of the pain.

Chloral hydrate combined with the sulphate of morphia, was used in some cases, in which the pain in the inflamed joint was of an intense spasmodic and jerking character.

The following formulæ were used according to circumstances to accomplish the results just indicated :

R_y. Quiniæ Sulph. ℥ii.

Pulv. digitalis. ℥ss.

Pulv. ipeca et opii (Dover's powders) ℥i.

Pulv. potassi nitratis. ℥ij.

Mix: Divide into 20 powders. One powder every four hours.

℞. Morphiæ sulph.....gr. ij.
 Tincture gelsemium (yellow jasmine) fʒij.
 Chloral hydrate.....ʒij.
 Aquæ camphoræ.....fʒvi.

Mix: Tablespoonful every three, four or six hours, if necessary to relieve pain and induce sleep.

4. The local treatment consisted of the application of the tincture of iodine, and of the combination of the tinctures of iodine aconite and opium to the inflamed joints, and the use of these agents in combination with olive oil.

The following formulae were used :

℞. Tincture of iodine.....
 “ opium.....
 “ aconite.....a[—]afʒiv.

Mix: Apply directly by means of brush to the inflamed joints.

℞. Tincture of iodine.....
 “ opium.....
 “ aconitea[—]afʒss.
 Olive oil.....fʒij.

Mix: Use as a linament to the inflamed joints.

℞. Tincture of opium.....
 “ camphor.....a[—]afʒiv.
 Aqua ammoniæ,.....fʒij.
 Olive oil.....fʒiv.

Mix: Use as a linament to the inflamed joints

℞. Chloroform.....fʒij.
 Tincture of opium.....fʒiv.
 Tincture of camphor.....fʒii.
 Olive oil.....fʒij.

Mix: Use as a linament to the inflamed joints.

Without doubt, the tincture of iodine was the most efficient application to the inflamed joints, in either acute or chronic rheumatism.

The inflamed limbs, after the local applications were

applied, were carefully wrapped up in cotton, surrounded with red flannel, and over this oiled silk was wrapped.

The cotton equalized the pressure and absorbed the moisture and sweat, condensed by the oiled silk.

In this manner the joints were subjected to a vapor bath, the oiled silk being confined by bands above and below the joints. The temperature of the vapor bath was a little lower than that of the surface of the patient.

5. Since the year 1878, I have employed salicylic acid and the salicylate of soda, in the treatment of rheumatism.

These agents are used freely in both chronic and acute rheumatism for their antipyretic effects, and also for their marked power in relieving and mitigating pain.

After careful observation I have been induced to consider the following as one of the best modes of administering salicylic acid and the salicylates:

R. Salicylate of soda.....ʒij.

Liquor ammoniæ acetatis.....ʒvi.

Mix: Tablespoonful with three tablespoonfuls of water every 2, 4 or 6 hours.

I have been led to regard the acetate of ammonia in the preceding combination, as of marked value in the treatment of rheumatism.

I have also derived benefit from the wine of colchicum, combined with iodide of potassium, in the treatment of chronic rheumatism and rheumatic gout, as in the following formula:

R. Vini colchici sem.....ʒi.

Potassi iodidiʒi.

Aqua menthæ pef.....ʒviij.

Mix: Teaspoonful in wineglassful of water every 4, 6 or 8 hours.

R. Morphine sulphatis.....grs. iv.

Vini calchici sem.....ʒii.

Potassi iodidiʒvi.

Aqua camphoræ.....ʒviij.

Mix: Tablespoonful every 4, 6 or 8 hours.

6. The diet should be simple but nutritious. As a rule wines and malt liquors should be avoided, and when alcoholic stimulants are necessary, pure whisky or brandy, properly diluted with water, should be used in moderate quantities at regular intervals.

SYPHILITIC RHEUMATISM AND CONSTITUTIONAL SYPHILIS.

Of the 362 cases of rheumatism, thirty cases, or less than one-tenth, were referred to the action of the syphilitic virus. Primary syphilis caused 34 cases, and secondary or constitutional syphilis caused 120 cases. Total cases of disease referable to the action of the syphilitic poison, 184; total deaths, 2. The cases of syphilitic rheumatism might have been classed with those of secondary or constitutional syphilis; the former is credited with no deaths, whilst the latter (120 cases) occasioned 2 deaths.

The treatment of syphilitic rheumatism did not differ essentially from that of constitutional syphilis, with the exception of the local treatment of the inflamed joints, and the measures for the relief of acute pain.

It is not our intention at this time to enter into an elaborate statement of the treatment of constitutional syphilis; we shall confine ourselves to the notice of the most efficient remedies.

The chief indications in the treatment of constitutional syphilis are:

1. The elimination of the syphilitic virus from the human system.
2. The removal of glandular enlargements and of syphilitic deposits and tumors.
3. The cure of syphilitic ulcerations, caries and cutaneous eruptions.
4. The restoration of the blood to its normal state.
5. The relief of nervous symptoms and lesions.
6. The removal of the effects of syphilitic inflammation from the joints.

The first, second and third indications are best met by

the use of the following remedies, which are placed in their relative positions of value and potency :

1. Mercury.
2. Iodide of potassium.
3. Iodine.

As far as the experience of the author extends, the best, most uniform and lasting results have been achieved by the employment of the preceding remedies, simultaneously as in the following formula :

R. Biniodide of mercury (red iodide of mercury).....grs. iv.
 Iodide of potassium.....℥iss.
 Tincture of Iodine.....℥iij.
 Peppermint water.....℥viiss.

Mix: One teaspoonful in four tablespoonfuls of water three times a day.

In the preceding combination, the red iodide of mercury is held in solution by the iodide of potassium; and the iodine exists in the free state, and in virtue of its physiological properties, in this condition, excites a profound effect upon the glandular system. Such a combination as that just given, is not merely a powerful *alterative*, but is also an efficient *antiseptic* and *germicide*.

I have seen a large number of patients in hospitals and in private practice (the latter greatly outnumbering the former), restored to good health by the continued use of the above combination in the treatment of constitutional syphilis.

The fourth indication may be met, and the natural tendency of the syphilitic poison to induce profound anemia, overcome by the following formula :

R. Red iodide (biniodide) of mercury.....grs. iv.
 Iodide of potassium.....℥j.
 Tincture of iodine.....℥iij.
 Syrup of the iodide of iron.....℥i.
 Peppermint water.....℥iij.
 Syrup of ginger.....℥v.

Mix : Dissolve the iodide of potassium in the peppermint water, then add the red iodide of mercury and tincture of iodine, and finally, the syrup of the iodide of iron and ginger.

Dose, teaspoonful in four tablespoonfuls of water three times a day.

We have the same dose of the red iodide of mercury (1-16 of a grain), in each wineglassful of both formulæ, but in the latter we have the iodide of iron.

When the nervous system is seriously involved during the progress of syphilis, in addition to the preceding remedies, strychnine and electricity should be employed.

The following formula for the administration of strychnine, has proved beneficial in hæmaplegia, paraplegia, general paralysis and muscular and nervous debility, induced by the prolonged action of the syphilitic poison :

R_y. Strychniæ sulphgrs.ij.
 Acidi nitro-muriatici dil.....f℥iij.
 Tinct. ferri sesqui chloridif℥vi.
 Quininæ sulph.....℥i.
 Aqua menthæl pip.....f℥viij.

Mix : Dose, teaspoonful in four tablespoonfuls of water every 8 hours ; suck through a glass tube.

This combination may be used alternately (that is preceding or following a continuous course) with either of the two preceding formulæ.

The success of the physician in dealing with the nervous affections induced by the poison of syphilis will evidently depend upon the extent and nature and position of the lesions. Thus the effect of the syphilitic deposits or tumors, depend largely upon their location along the cerebro-spinal system. The effects of syphilitic deposits or tumors of the brain, will depend upon the position which they occupy, and rapidity of growth. The effects of syphilitic tumors of the brain and spinal cord will vary with the functions of those portions of the cerebrum, cerebellum, medulla oblongata and spinal cord, upon which they induce pressure

The sudden fatal effects of syphilitic tumors of the brain will be illustrated by the following case:

Case: Constitutional Syphilis; Persistent Pain in the Head; Convulsions and Death; Syphilitic Tumor at Base of Brain.

John Armigee, age 32 years, native of Baltimore, boiler-maker, well formed and muscular man, of average size; entered Ward 36, bed 449, Charity Hospital, March 8, 1878.

The patient had been discharged upon two occasions from the hospital, the attending physicians holding that he presented no marks or signs of disease.

Upon examination I found the patient to be suffering with severe pains in the spinal column, and shooting pains in the forehead, and in the occipital region; staggering gait; wandering intellect; aphasia.

He presented, however, to the casual observer, the general appearance of health. At times the patient complained of wandering pains in the chest and lower extremities; dull, sleepy expression of the eyes; bowels constipated; urine normal in appearance and free from albumen and casts.

Upon careful inquiry I ascertained that the patient had contracted syphilis in 1870.

The continuous and distressing headache was referred to the effects of the syphilitic poison, and the usual treatment for constitutional syphilis was instituted, viz:

R. Red iodide of mercury.....grs. iv.
 Iodide of potassium.....℥iss.
 Tincture of iodine.....℥ij.
 Peppermint water.....℥vii.

Mix: Teaspoonful in four tablespoonfuls of water three times a day.

This treatment was supplemented also by full doses of bromide and iodide of potassium; from one to two scrup-

ples of each drug administered at bed time, and whenever the pain in the head was especially severe.

The patient expressed himself as greatly relieved by this plan of treatment

At 9 o'clock, p. m., March 22, 1878, the patient was seized with a violent convulsion, and died in one hour.

The spasm of the respiratory muscles was never relaxed, nor was consciousness restored during the hour preceding death.

Post-mortem examination: Heart and lungs healthy, and nothing abnormal was observed in the abdominal viscera.

When, however, the cranium was opened, a small pyriform tumor about one inch in length, and half an inch in diameter, was found at the base of the brain, towards the left of the median line, attached to the peduncles and pressing upon the optic thalamus of the left side.

The supervention of cranial pains, the unsteadiness of gait, the occurrence of convulsions, spasms of the respiratory muscles, coma and death, were clearly referable to the origin and slow but continuous growth, and consequent cerebral compression of the syphilitic tumor.

LOCAL DISEASES.

Diseases of the Nervous System.

	Cases.	Deaths
Meningitis.....	8	2
Cerebritis.....	2	2
Softening of the brain.....	7	3
Abscess of brain.....	2	2
Syphilitic tumor at base of brain.....	1	1
Apoplexy (cerebral hæmorrhage).....	15	11
Cerebro-spinal sclerosis.....	1	1
Spinal meningitis.....	9	2
Myelitis.....	1	1
Atrophy of spinal cord.....	2	1
Sclerosis of spinal cord.....	6	11

Hæmiplegia.....	59	12
Paraplegia.....	34	4
Paralysis caused by lead.....	8	1
Paralysis (agitans).....	5	—
Epilepsy.....	40	2
Loco-motor ataxia.....	6	—
Sciatica.....	8	—
Facial neuralgia.....	27	—
Chorea.....	1	—
Dementia.....	13	—
Dementia and general paralysis.....	6	2
Insanity.....	7	1
Tetanus.....	1	—
Sunstroke (thermic disease).....	3	1
Alcoholism (delerium tremens).....	170	9
Total diseases of the nervous system.		59

Three of the cases of epilepsy were traced to the habit of self-abuse; and four of the cases of dementia and general paralysis were traced to the same cause. Without doubt a considerable number of these and other nervous disorders were induced originally by self-abuse and excessive indulgence of the sexual appetite; but the absolute reticence of many patients with regard to their personal history in such matters precludes the determination of the cause beyond all doubt.

Six of the cases of epilepsy were referable to blows inflicted upon the cranium, causing fractures and depressions of the bones.

Many of the cases of cerebro-spinal diseases, dementia, general paralysis, paraplegia and hæmiplegia appeared to have their origin in the abuse of alcoholic stimulants.

DISEASES OF THE CIRCULATORY SYSTEM.

	Cases.	Deaths.
Heart: valve disease; mitral.....	30	11
“ “ “ tricuspid.....	1	—
Aortic, pulmonary and tricuspid valves.....	8	3

Fibrinous concretion in heart.....	1	1
Hypertrophy and dilatation of heart.....	1	
Hypertrophy, dilatation and valvular disease.	20	10
Fatty degeneration.....	4	3
Palpitation and irregular action.....	2	
Pericarditis.	1	
Aneurism of ascending aorta.....	10	2
Fatty and calcareous degeneration of heart and arteries.....	1	1
Aneurism of arch of aorta.....	5	3
Aneurism of carotid.....	1	
Aneurism of descending aorta.....	1	
Aneurism of abdominal aorta.....	4	1
Valvular disease of heart and aneurism.....	1	1
Total diseases of heart and blood-vessels,	91	36

DISEASES OF ABSORBENT SYSTEM.

Non-syphilitic bubo, case 1; scrofulous disease of glands, case 1; disease of renal capsules (Addison's disease), case 1. Death, 1.

	Cases.	Deaths.
Total diseases of absorbent system.....	3	1

DISEASES OF THE RESPIRATORY SYSTEM.

	Cases.	Deaths.
Bronchitis.....	160	4
Vesicular emphysema.....	1	
Asthma.....	49	3
Gangrene of Lungs.....	1	1
Pneumonia.....	152	32
Pneumonia (double).....	41	21
Pleuro-pneumonia.....	16	6
Pleuro-pneumonia (double) supervening on malarial fever.....	4	4
Pleuro-pneumonia supervening on phthisis....	2	2
Abscess of lungs.....	2	1
Laryngitis (acute).....	7	2

Pleuritis	47	3
Hydrothorax.....	6	1
Pneumo-thorax.....	2	1
Hydro-pneumo-thorax	2	1
Total diseases of respiratory system.....	493	82

DISEASES OF ALIMENTARY CANAL.

	Cases.	Deaths.
Inflammation of fauces and palate.....	1	..
Ptyalism.....	1	..
Tonsillitis.....	6	..
Pharyngitis.....	3	..
Trachitis	4	..
Dyspepsia.....	4	..
Gastritis.....	10	..
Gastralgia.....	1	..
Gastro-enteritis and jaundice.....	2	..
Gastro-enteritis.....	5	..
Cholera morbus.....	10	..
Enteritis.....	7	..
Dysentery (acute).....	122	17
Dysentery (chronic).....	90	42
Diarrhœa (acute).....	160	7
Diarrhœa (chronic).....	125	25
Dysentery and diarrhœa (chronic).....	131	30
Constipation.....	5	..
Hernia.....	6	..
Obstruction of the bowels.....	2	2
Hæmorrhoids.....	8	..
Fistula in ano.....	2	..
Prolapsus of anus.....	1	..
Abscess of rectum.....	1	..
Cancer of rectum.....	1	..
Peritonitis.....	1	..
Total diseases of the alimentary canal.....	799	123

It will be observed that in the class of diseases of the

alimentary canal acute diarrhœa and acute dysentery occasioned 282 cases, with 24 deaths, and chronic diarrhœa and dysentery occasioned 346 cases and 97 deaths; the mortality being relatively greater in the chronic than in the acute forms of these diseases.

Many of these cases were brought in wretched condition from the swamps along the railroads, and from the rice-fields above and below New Orleans, on the banks of the Mississippi and its tributaries, or were complicated by the action of the malarial poison.

Many cases of dysentery were subjected to careful clinical study, and post-mortem examinations were frequently made in fatal cases. The more important lessons were:

1. Inflammatory thickening and ulceration of the mucous membrane of the colon and rectum.
2. The transudation of blood and gelatinous, fibrinous and bloody exudation from the ulcerated surfaces.
3. The co-existence and pre-existence of abscesses of the liver.
4. The co-existence and pre-existence of hepatitis.
5. The co-existence of the characteristic lesions of malarial fever, such as enlarged pigmented liver and spleen and watery blood.

The persistence of many cases of dysentery, as well as the oft-recurring relapses in the chronic stage of the disease must be referred mainly to the existence of ulcerations of the mucous membrane of the colon and rectum.

As long as one or more ulcers remain unhealed, any imprudence of diet, as well as exposure to cold and wet, and excessive fatigue, may light up the disease and excite the severest symptoms. This proposition might be illustrated by numerous cases, but we select the following from the clinical record

Case: Acute Dysentery; Death; Thickening and Ulceration of Large Intestine; Multiple Abscesses of Liver.

Morgan Heard, native of Tennessee, age 42 years, bar-

keeper, entered Ward 16, Charity Hospital, November 1, 1883, suffering with severe pain in abdomen and violent tormina and tenesmus, fever, great prostration, frequent offensive evacuations from the bowels, consisting of blood, thick bloody mucous and thick fibrinous and gelatinous matters.

Patient states that he has suffered with dysentary and diarrhoea during the past month; complains of some paroxysmal pains in the right hypochondriac region, the paroxysms numbering from eight to ten during the day, each severe paroxysm of pain in this region, being followed by great prostration and colliquative sweats. Sulphate of morphia, combined with subnitrate of bismuth gave temporary relief, but the patient gradually lost flesh and strength, and died November 7, 1886.

Post-mortem: Brain and spinal cord, heart and lungs healthy.

Abdominal Cavity: Mucous membrane of colon and rectum greatly congested, thickened and ulcerated. Lower portion of ilium also greatly congested and thickened. No special changes observed in the solitary and peyers glands. The ulcerated and adjacent parts of the thickened intestinal mucous membrane were covered with a thick, tenacious, fibrous, semi-transparent, and in places bloody exudation. The right lobe of the liver was considerably enlarged, and contained several circumscribed abscesses containing from half a fluid ounce to one fluid ounce of pus.

DISEASES OF THE LIVER.

	Cases.	Deaths.
Hepatitis.....	24	6
Hepatitis and abscess of liver.....	12	7
Cirrhosis of liver, with ascites and anasarca		
of lower extremities.....	31	21
Adenoma and cirrhosis of liver.....	1	1
Jaundice.....	10	..
Fatty degeneration of liver.....	3	..

Amyloid degeneration of liver.....	1	..
Hydatids of liver.....	1	1
Tuberculosis of liver.....	1	1
Obstruction of common bile duct and jaundice.	1	1
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Total diseases of liver.....	85	38

DISEASES OF THE SPLEEN.

	Cases.	Deaths.
Splenitis	2	..
Hypertrophy of spleen.....	1	..
Leucocythæmia.....	1	1
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Total diseases of spleen.....	4	1

The following facts should be noted with reference to the preceding classification of the diseases of the liver and spleen.

The cases recorded as jaundice did not express the number of cases presenting this symptom, for almost every case of yellow fever, and a large number of the various forms of malarial fever, as well as some cases of hepatitis, cirrhosis and pneumonia were jaundiced. Every case of prolonged malarial fever presented more or less hepatic derangement and enlargement of the spleen, but the secondary derangements were included under the head of the original malarious diseases.

DISEASES OF THE KIDNEYS.

	Cases.	Deaths.
Bright's disease of the kidneys.....	80	20
Acute nephritis.....	2	1
Diabetes mellitus.....	3	1
Diabetes Insipidus.....	2	..
Renal calculus.....	1	..
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Total diseases of the kidneys.....	88	26

DISEASES OF THE BLADDER AND MALE ORGANS OF GENERATION.

	Cases.	Deaths.
Cystitis	6	..
Enlarged prostate.....	1	..
Stricture	9	..
Urinary fistula.....	1	..
Vesico-rectal fistula.....	1	..
Gonorrhœa.....	25	..
Hæmorrhage from urethra.....	1	..
Varicocele	4	..
Cancer of the penis.....	1	..
Phymosis.....	3	..
Hydrocele.....	6	..
Orchitis.....	10	..
Syphilitic enlargement and induration of testicle.....	2	..
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Total diseases of the bladder and male organs of generation.....	70	..

DISEASES OF FEMALE ORGANS OF GENERATION.

	Cases.	Deaths.
Gonorrhœa.....	5	..
Prolapsus uteri.....	2	..
Amenorrhœa.....	1	..
Metritis.....	3	..
Abortion.....	3	..
Vesico-vaginal fistula.....	1	..
Recto-vaginal fistula.....	2	..
Fibrous tumor of uterus.....	2	1
Cancer of uterus.....	1	..
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Total diseases.....	20	1

During the year 1869, I took charge of the female wards, during the absence of my friend and colleague, the late Professor Frank Hawthorne, and hence, these cases of female diseases appear amongst my records.

DISEASES OF THE ORGANS OF LOCOMOTION.

	Cases.	Deaths.
Caries and necrosis of bones.....	6	..
Synovitis.....	4	..
Caries of spine with curvature.....	2	..
Psoas and lumbar abscesses.....	3	I
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Total diseases of organs of locomotion...	15	I

DISEASES OF THE CUTANEOUS SYSTEM.

	Cases.	Deaths.
Urticaria.....	2	..
Psoriasis.....	5	..
Pemphigus.....	I	..
Scabies.....	5	..
Eczema.....	2	..
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Total diseases of cutaneous system.....	15	..

DISEASES OF THE EYE, NOSE AND EAR.

	Cases.	Deaths.
Conjunctivitis.....	I	..
Purulent ophthalmia.....	I	..
Gonorrhœa.....	2	..
Scrofulous ophthalmia.....	I	..
Abscess of cornea.....	3	..
Syphilitic iritis.....	3	..
Scrofulous iritis.....	2	..
Catarrh.....	4	..
Blindness.....	6	..
Oezœna.....	I	..
Otorrhœa.....	I	..
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Total diseases of the eye, nose and ear..	25	—

INJURIES, ULCERS AND ABSCESSSES.

	Cases.	Deaths.
Burns and Scalds.....	6	..
Ulcers.....	28	1
Amputations of lower extremities for ulcers..		13
Gangrene of both feet (result of exposure to cold during nights in Louisiana swamp: amputation of both feet.....	1	..
Concussion of brain.....	6	3
Contusion of head.....	1	..
Contusion of back.....	5	..
Contusion of abdomen.....	4	..
Fractures.....	5	..
Fracture of femur in old age.....	1	1
Incised wounds.....	6	..
Dislocations.....	2	..
Gunshot wounds.....	4	..
Abscesses of thigh, ear, throat and parotid gland.....	21	..
Abscess of parotid gland and pyæmia.....	1	1
Abscess of rectum and pyæmia.....	1	1
Cancrum Oris.....	1	..
Total injuries, ulcers and abscesses.....	90	5

POISONS.

	Cases.	Deaths.
Lead poisoning.....	11	1
Opium habit.....	7	..
Poisoning by carbonic acid and carbonic oxide gases.....	1	1
Opium poisoning.....	1	..
Poisoning by oxalic acid.....	1	..
Total poisons.....	21	2

During the period comprised in the present statistics the author has been called upon in private practice to treat a large number of cases of poisoning by various agents, and

has also been actively engaged in the investigation of said cases and their prosecution before the courts of justice. He has also illustrated his lectures on Toxicology before the medical classes of the Medical Department of the University of Louisiana (now Tulane), with numerous experiments with various poisons upon animals. It would be foreign to our present purpose to enter into a detailed statement of the results of such labors and demonstrations; but we feel constrained to urge upon the attention of the medical profession the great value of fresh milk administered internally in large and often repeated doses in all cases of irritant poisoning. I have found fresh milk of especial value in the treatment of acute arsenical poisoning.

We will cite three instances illustrating the value of fresh milk in large quantities administered internally in

ACUTE ARSENICAL POISONING.

1. An entire family, consisting of the father, mother, four children and a young man were poisoned by arsenious acid thrown into the boiling pot of soup in the year 1874, in New Orleans.

The excitation of vomiting and the use of large and repeated doses of fresh milk, followed by rest and milk and lime water, resulted in the recovery of the six individuals. The young man was the most strongly impressed, and suffered with suppression of the urinary excretion for about thirty-six hours. The scanty urine excreted at the end of this time yielded arsenic by the processes of Reinch, and also was shown by chemical and microscopical analysis, to contain albumen and granular casts.

The entire surface of this young man's body was covered with a bright scarlet rash, (resembling that of scarlatina,) during the suppression of the action of the kidneys.

2. About the time of the outbreak of the memorable yellow fever epidemic of 1878, I was summoned at night to visit a family residing near St. Charles street and Napo-

leon avenue, who were said to be suffering from symptoms of poison.

I found the head of the house, a large man about fifty years of age, lying dead on the floor of the family parlor.

His wife, son and four servants were suffering with violent vomiting and cramps. Investigation showed that white arsenic, which had been purchased to destroy vermin and rats, had been used by accident in the place of white sugar, in the preparation of pastry.

The free use of fresh milk and milk and lime water, resulted in the recovery of the remaining victims.

3. On the first of June, 1885, I was summoned early in the morning to visit some members of the family of a neighbor who had been taken violently ill after drinking *black coffee*.

The patients presented all the characteristic symptoms of acute arsenical poisoning, and I found on examination of the premises, that a large quantity of white arsenic (arsenious acid) had been placed in the coffee mill and ground up with the coffee.

I immediately administered large quantities of fresh milk, followed by ipecac and warm water.

Profuse and repeated vomitings were thus excited, and the stomachs were washed out with the warm milk and warm infusion of ipecac. As soon as the nausea and vomiting had ceased, the bowels were opened with castor oil. The patients were then confined to bed and nourished with milk and lime water, 3 parts of fresh cow's milk to 1 part of lime water.

Although these patients suffered extreme agony and were greatly prostrated from the poisonous and irritant effects of the arsenic, they, one and all recovered.

The milk dilutes the poison, encloses it, in its coagula, sheaths the inflamed surface of the mucous membrane, and when the stomach is capable of absorption and digestion forms an element of the greatest value.

CONDITIONS NOT NECESSARILY ASSOCIATED WITH LOCAL
OR GENERAL DISEASES.

	Cases.	Deaths.
Parturition.....	16	1
Hypochondriasis.....	8	..
Old age, senile debility (many of the fatal cases were attended with ossification and degeneration of blood-vessels and failure of the heart and brain and lungs.....	65	13
	—	—
Total diseases.....	89	14

PARASITES.

	Cases.	Deaths
Tænia solium (tape worm).....	II	..
	—	—
Total parasites.....	II	..

The mode in which we have grouped the different diseases is not free from certain objections. Thus, we have classed alcoholism (*delirium tremens* and *mania à potu*) under the head of nervous diseases, whilst the effects of alcohol may, with almost equal propriety, be classed under the head of poisons. As the habitual use and abuse of alcoholic stimulants leads to fatty degeneration, hepatic derangements, cirrhosis of the liver and kidneys, exhausted, nervous and intellectual actions, and other abnormal conditions, it is evident that alcoholism, *delirium tremens* and *mania à potu* might also with equal propriety be classed with general diseases.

Nevertheless, as the most prominent symptoms caused by the excessive use of alcohol, in patients transferred from the streets and crowded habitations of the poor, to the crowded wards of the hospital, are referable to the nervous system, such as mild delirium, sleeplessness, muscular and nervous agitation, it is evident that for all practical purposes those suffering from the effects of alcohol may be classed, as in the preceding consolidated statements.

The preceding facts are significant, showing that alco-

hol does not destroy its victims, in most cases, suddenly, as in the dead sleep of profound intoxication, or in the wild maniacal ravings of delirium tremens. By slow and measured steps, in most cases, by inducing cirrhosis of the liver, Bright's disease of the kidneys, anasarca, ascites, rheumatism, rheumatic gout, defective vision, fatty degeneration of heart, arteries and muscular system, which finally end in paralysis, imbecility, and insanity, alcohol involves its victims in irremediable and everlasting ruin.

Without doubt *alcohol* occasions a vast amount of disease over the face of this mighty Republic, and carries death, destruction, dishonor and shame into thousands of happy homes. Alcohol is at the bottom of a large proportion of the crimes committed in the United States. Alcohol dethrones reason and poisons the fountains of sentiment and morals, and is even more destructive upon the moral and intellectual nature than upon the physical organism of man.

We must not suppose that the effects of alcohol are discernable only in the drivelling idiotic drunkard, and the physically and morally rotten and abandoned wretches that crowd our bar-rooms, jails and brothels, but they are seen on every hand, in the dropsical, paralyzed, demented inmates of our hospitals and alms-houses, and in those suffering with various diseases of the kidney and liver, in high life as well as in low places.

The constitution of the wealthy and successful in any walk of life, whether professional or mercantile, may be as slowly and effectually undermined by the habitual use and abuse of alcoholic stimulants as that of the day-laborers working in the sewers of our streets or in the bogs of our swamps.

The paralysis produced by the prolonged action of lead upon the nervous system might be classed with nervous diseases; whilst the acute form of *colica pictonum* would find a place under the head of poisons.

If a comparison be instituted between the rate of mortality in these cases under the immediate care of the author and the general statistics of the Charity Hospital, we ob-

tain the following data which he has consolidated at the expense of much time and labor.

During eighteen years preceding the Civil War (1842-1861), the total admissions into the Charity Hospital of New Orleans were 207,356, total deaths, 29,614; per cent. of deaths, 14.2.

During sixteen years following the Civil War (1864-1881), total admissions, 96,857; total deaths, 14,104; per cent. 14.5.

Total admissions during thirty-four years, 304,213; total deaths, 43,718; per cent. of deaths in the Charity Hospital of New Orleans during the thirty-four years specified, 14.3.

The greater proportion of the cases of fever, and of all other diseases treated by the author in the Charity Hospital during the period specified (1869-1886), were natives of foreign countries and of surrounding States. Many had resided in Louisiana only a short time, not exceeding one year in the United States, whilst many were brought directly to the wards of the hospital from the swamps and rice-fields of the delta of the Mississippi river; within a month after their arrival from Europe.

Upon a careful examination and classification of the statistics of the Charity Hospital of New Orleans, during the period of forty years—1836-1876—we found that 310,659 patients were admitted; and of this number, 248,011 were foreigners; 55,403 natives of the United States, outside of Louisiana, and only 11,761 were natives of Louisiana.

During the entire period of the Hospital Service of the author, similar relations with reference to nativity existed amongst the patients under his care and treatment.

During a term of service extending from October 1st, 1884, to April 1st, 1885, of a grand total of 547 cases treated by the author in the Charity Hospital, only 42 were natives of Louisiana, and of these only 18 were natives of New Orleans, the remaining 24 having been born in the various parishes of Louisiana.

Of the 63 deaths occurring during this period, only two were natives of New Orleans, and the cause of death was

the same in both—namely, *phthisis pulmonalis*. Among the 24 natives of the other parishes of Louisiana, four deaths occurred by the following causes: chronic Bright's disease, chronic dysentery, pernicious malarial fever, malarial toxæmia, or cachexia of long standing, with enlarged spleen, anæmia and general anasarca. The natives of Louisiana constituted only 7.6 per cent. of all cases treated, and the mortality 9.2 per cent. of the deaths from all causes.†

During a term of hospital service extending from October 1st, 1885, to April 1st, 1886, of a grand total of 323 cases of all diseases treated by the author, 11 were natives of New Orleans, and 60 of the parishes outside of the limits of the parish of Orleans. The foreigners and natives of other States of the Union numbered 252.

CLINICAL INSTRUCTION.

The labor and responsibility involved in the gratuitous medical service rendered to 6311 cases treated in the Charity Hospital during the period specified from January, 1869, to April 1st, 1886, was considerable, and was only equalled if not excelled by that of the practical instruction of the medical students by the bedside of the patients in the wards of the Charity Hospital under the care of the author.

The number of clinical bedside and amphitheatre lectures was about 100 during each term of service; amounting during the 18 years, 1869-1886, to 1800 lectures. Post-mortem examinations were made on the most important cases and clinical records preserved; and chemical analyse and microscopical investigations conducted in the laboratory.

In this manner the effort was made to make the medical service in the Charity Hospital of New Orleans, serve the triple purpose, of relieving and healing the sick and destitute poor; of practical bedside, clinical, chemical, micros-

copical, and pathological instruction to medical students; and the advancement of medical science by original pathological, chemical, microscopical, and therapeutical investigations.

The establishment in 1870 of a practical laboratory by the author for the study of chemistry, microscopy, toxicology, and pharmacy, has resulted in a material advancement of the knowledge of these sciences amongst the students of medicine and pharmacy in the medical department of the University of Louisiana (now Tulane).

Previous to the establishment of the course of practical instruction, the entire number of graduates in pharmacy, in the medical department of the University of Louisiana, during a period of 34 years, 1886-1870 did not exceed 24; whilst during a period of 16 years, 1870-1886, the graduates in pharmacy have exceeded 120.

Each year, we have been tendered assurances from the medical profession of Louisiana, Texas, Alabama, and Mississippi, as to the value of this practical instruction.

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April 14th, 1886.

New Orleans, La.

